

TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
FCC FILE NO. BMPCDT-19980825KK
FACILITY ID 73374
STATION WSWB-DT
SCRANTON, PENNSYLVANIA
CH 31 100 KW 352 M

Technical Narrative

This technical exhibit was prepared in support of an application for modification of the construction permit for station WSWB-DT on channel 31 at Scranton, Pennsylvania (BMPCDT-19980825KK). By means of this instant modification application, WSWB-DT proposes to decrease the nondirectional antenna maximum effective radiated power (ERP) from 400 kW to 100 kW and reduce the antenna radiation center height above average terrain (HAAT) by 8 meters, from 360 meters to 352 meters. No other changes are proposed. The instant application is considered a minor change in facilities pursuant to Section 73.3572(a). Furthermore, as detailed below, the instant application is also acceptable for filing under the criteria set forth in the FCC TV/DTV freeze as there will be no increase in WSWB-DT's authorized DTV service area in any direction.¹

Proposed Facilities

It is proposed to operate WSWB-DT from the authorized WSWB-DT tower site (FCC Tower registration 1026644; NAD27 coordinates: 41-26-09 N, 75-43-46 W) on DTV channel 31 (572-578 MHz) with a nondirectional antenna maximum ERP of 100 kW and an antenna HAAT of 352 meters. No other changes are proposed. It is proposed to utilize an ERI model ALP12M2-HSOC-31 nondirectional antenna which will be mounted at the 79 meter level on the existing tower structure and will incorporate an electrical beam tilt of 0.5 degrees. The proposed antenna radiation center height above mean sea level will be 707 meters.

¹ See FCC Public Notice dated August 3, 2004 entitled "Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes" (DA 04-2446).

Antenna Data

Figure 1 provides a graph of the vertical plane relative field pattern for the proposed ERI model ALP12M2-HSOC-31, horizontally polarized, nondirectional antenna system.

Response to Paragraph 11 - Interference Protection

Figure 2 is the separation study for DTV channel 31 from the proposed WSWB-DT site. The study has been used to determine the assignments requiring interference studies using the procedures outlined in the FCC's OET-69 bulletin. An interference analysis has been conducted using the procedures outlined in the FCC's OET-69 bulletin which demonstrates that the proposal complies with the interference protection provisions of Section 73.623(c)(2).²

Class A Allocation Considerations

A study has been conducted which indicates that the WSWB-DT proposal will not create prohibited interference to other existing, authorized or proposed Class A stations.

US-Canadian LOU Compliance

The proposed WSWB-DT transmitter site is located within the US-Canadian border area. However, as the proposal does not involve a change in transmitter site or an extension of authorized coverage, it is not believed that Canadian coordination is necessary.

Compliance with TV Freeze Order

Figure 3 is a map which depicts the location of the predicted 41 dBu, F(50,90) contours for the authorized WSWB-DT operation (BMPCDT-19980825KK) and the herein proposed WSWB-DT DTV channel 31 operation. As indicated, the 41 dBu contour for the instant modification application is entirely within

² The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km and nominal terrain increment of 1 km were employed.

the 41 dBu contour for the authorized operation. Therefore, it is believed that the instant modification application is acceptable for filing under the criteria set forth in the FCC TV/DTV freeze as there will be no increase in WSWB-DT's DTV channel 31 service area, based on the authorized facilities, in any direction.

City Coverage

Figure 3 also depicts the predicted 48 dBu, F(50,90) coverage contour for the herein proposed WSWB-DT channel 31 operation. As indicated, Scranton is located within the 48 dBu contour. The Scranton city limits were derived from information contained in the 2000 U.S. Census for Pennsylvania.

The distances to the predicted 41 dBu and 48 dBu, F(50,90) coverage contours were determined in accordance with the provisions of Section 73.625. The average elevations from 3.2 to 16.1 kilometers from the transmitter site, were obtained from the NGDC 30-second terrain database and were used for determining the distances to coverage contours.

Objectionable Interference

There are no AM stations located within 5.9 kilometers (3.7 miles) of the proposed transmitter site. Figure 4 provides a tabulation of all known authorized full service FM and TV stations within 16 kilometers of the proposed WSWB-DT site. Although no adverse electromagnetic impact is expected, the applicant recognizes its responsibility to correct problems, which are a result of its proposed operation.

The proposed site is more than 2448 kilometers from the closest point of the Mexican border. The closest FCC monitoring station is at Canandaigua, NY located 207 kilometers to the northwest. The National Radio Quiet Zone (VA/WV) is 338 kilometers to the southwest. The Table Mountain Radio Quiet Zone (CO) is more than 2474 kilometers to the west. The closest radio astronomy site conducting research on TV channel 37 is at Hancock, NH located 350 kilometers to the east-northeast. All these separations are considered sufficient to avoid interference from the proposed operation.

Environmental Protection Act

The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed DTV antenna is located 79 meters above ground level. The maximum DTV ERP is 100 kW (horizontal polarization). A "worst-case" vertical plane relative field value of 0.22 (for angles below 60 degrees downward) is assumed for the antenna's downward radiation (see Figure 1). The calculated power density at a point 2 meters above ground level is 0.0273 mW/cm². This is 7.2% of the FCC's recommended limit of 0.38 mW/cm² for channel 31 for an "uncontrolled" environment.

However, as this is a multiple-user site all existing and authorized broadcast facilities in the vicinity must be considered in the RFR evaluation. The calculations are summarized below:

Station	ERP (kW) ³	Radial Distance to Test Point (m)	Relative Field Factor ⁴	Calculated Power Density/ANSI Limit (mW/cm ²)	Fraction of ANSI Limit
Proposed	100	77	0.22	0.0273/0.38	0.072
W24DB	19.25	89	0.50	0.0092/0.36	0.026
WSWB-TV ⁴	1419	107	0.20	0.0782/0.41	0.190
WQPX-DT(CP)	528	280	0.15 ⁵	0.0051/0.39	0.013
WQPX-TV	5500	292	0.20	0.0392/0.52	0.076
W205AG	0.007	20	0.50	0.001/0.20	0.001
WBHD-FM	1.2	28	0.5	0.0128/0.20	0.064
WUSR-FM	0.6	306	1.0	0.002/0.20	0.001
WWRR-FM	0.54	311	1.0	0.002/0.20	0.001

The summation of the above fractions of the ANSI limit for each of the above stations is 0.444. Since this is less than unity, the combined power density at 2 meters above ground level will be less than the ANSI recommended limit applicable to general population/uncontrolled exposure areas. Thus, it is believed that the WSWB-DT facility is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

³For FM stations this includes radiation in both horizontal and vertical planes. For TV stations this includes the peak visual radiation and the aural carrier radiation.

⁴This factor was conservatively estimated based on typical vertical plane radiation patterns.

⁵ Obtained from BMPCDT-20010510AAE.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, as this is a multi-user site, an agreement will be in effect with the other stations in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure.

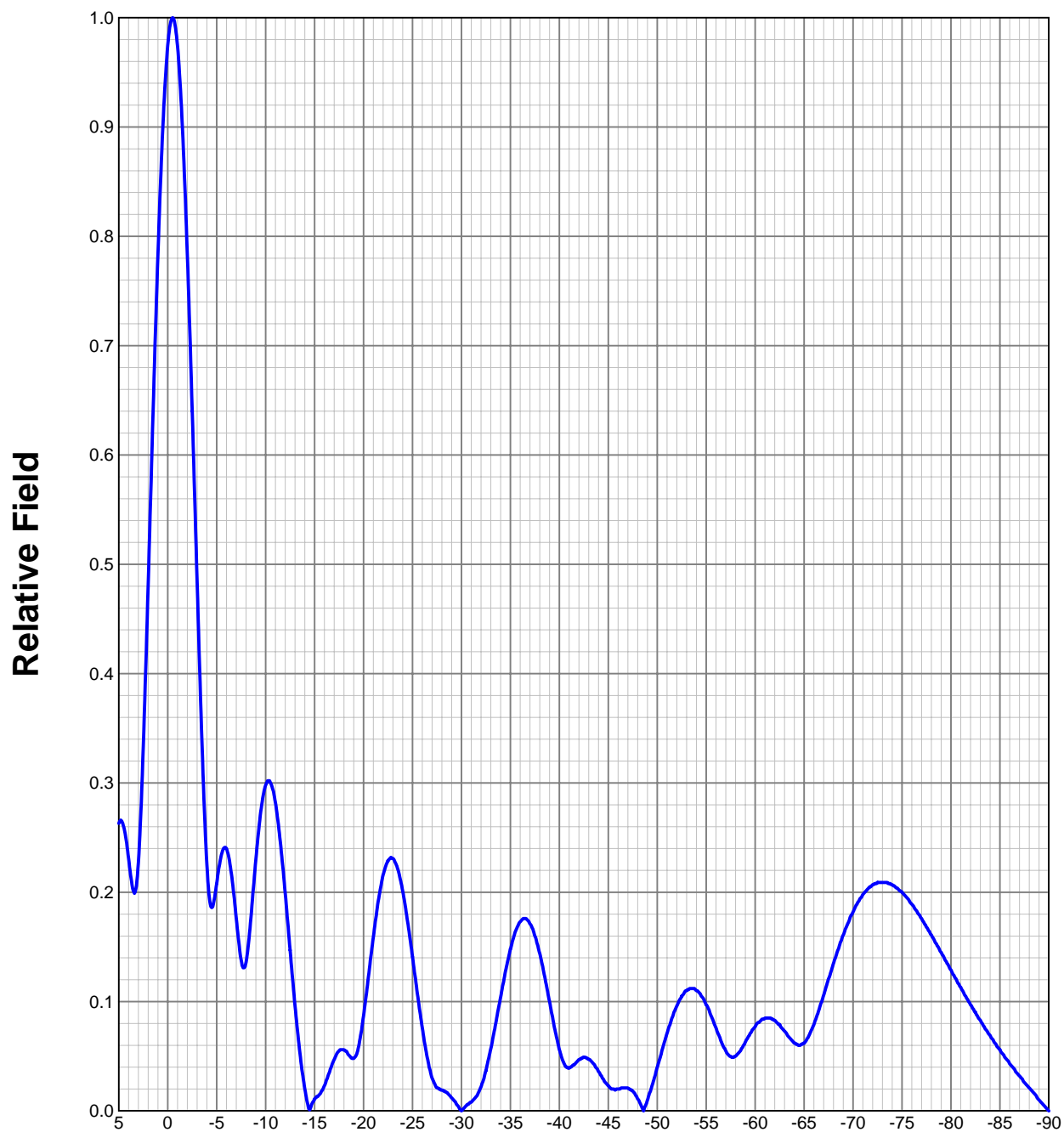
Finally, it is noted that this technical exhibit only addresses the potential for radio frequency electromagnetic field exposure. All other aspects of the environmental processing analysis will be or already has been provided to the FCC by the tower owner as part of the tower registration process.



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June 8, 2006

ELEVATION PATTERN**Type:****ALP12M2****Channel:****31****Directivity:****Numeric****dBd****Location: SCRANTON, PENNSYLVANIA****Main Lobe:****12.64****11.02****Beam Tilt:****-0.50****Horizontal:****12.02****10.80****Polarization:****Horizontal**

CDBS TV/DTV SEPARATION STUDY

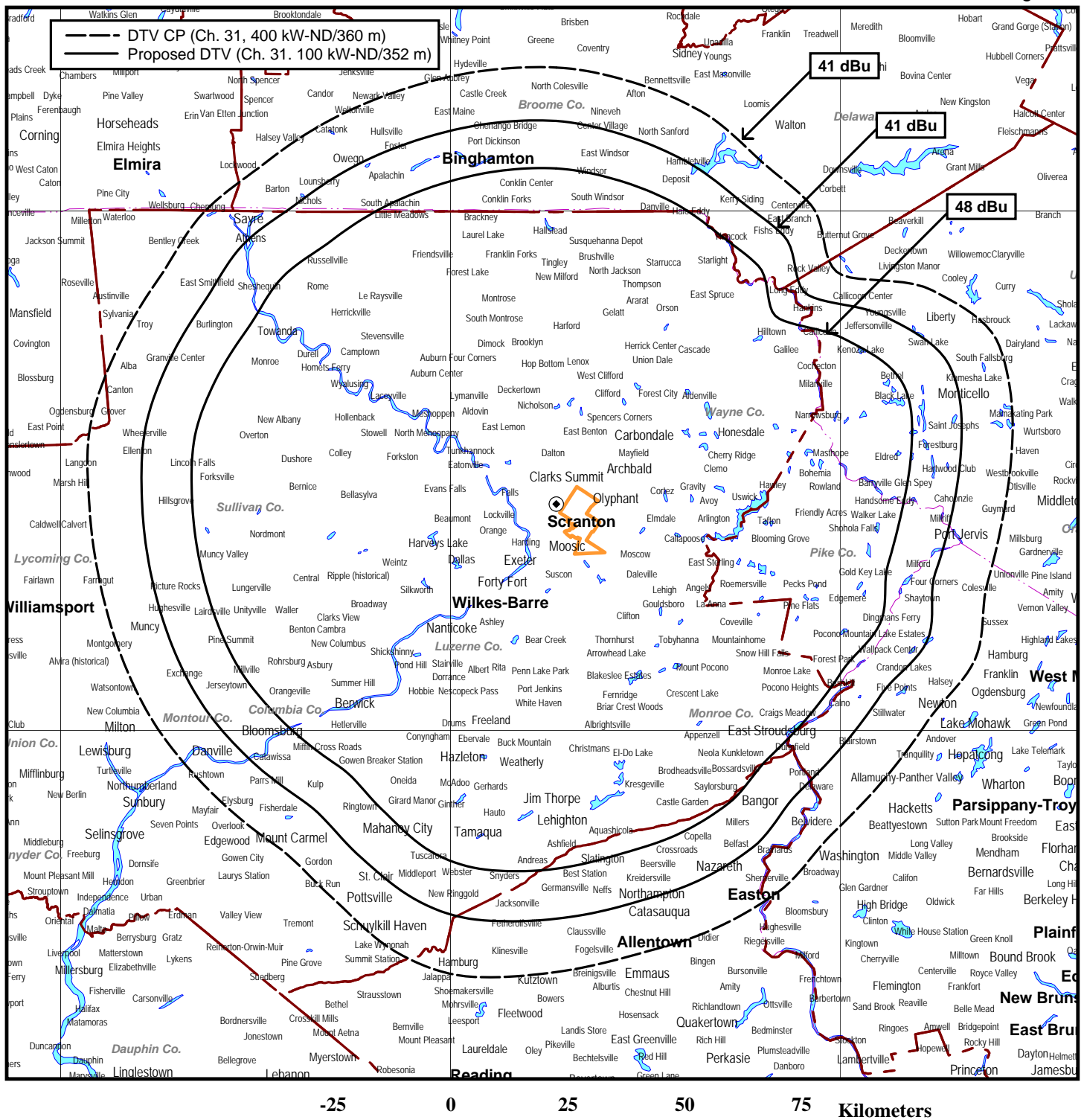
Job Title: Proposed WSWB-DT, Scranton, PA
Channel: 31
Class: VU
Type: DT

Separation Buffer: 32 km
Coordinates: 41-26-09 075-43-46
Zone: I

Call Id	City St	Status	File Num	Channel Zone	ERP HAAT	DA Id	Latitude Longitude	Bear	Dist. (km)	Req. min max
WNEP-TV 73318	SCRANTON PA	BLCT LIC C	2623	16(-) I	1150.000 506	N 40176	41-10-58 075-52-21	203.1	30.6 6.45	24.1 80.5 Short
W24DB 52077	CLARKS PA	SUMM LIC C	BLTTA 20041202AD	24(Z)	17.500	D 16528	41-26-09 075-43-46	96.8	0.0 24.10	0.0 0.0 Class A
W24BB 68137	EAST STROUD PA	BLTTL LIC C	19911219JM	24(-)	53.500	D 18064	41-01-36 075-30-17	157.5	49.2 25.09	0.0 0.0 Class A
W24BL 71222	POTTSVILLE, PA	BDFCD APP C	20060403AK	24()	0.003	D 20751	40-40-38 076-12-04	205.3	93.1 12.61	24.1 80.5 Close
WBRE-TV 71225	WILKES-BARR PA	BLCT LIC C	19891005KF	28(Z)	3020.000 509	N	41-11-01 075-52-02	202.4	30.3 6.19	24.1 80.5 Short
WSKA 78908	CORNING NY	BPET CP C	19960126KE	30(Z)	813.000 242	N 19159	42-01-55 076-47-02	307.5	109.9 3.91	12.0 106.0 Close
W30AN 71224	WILLIAMSPOR PA	BDFCD APP C	20060403AK	30()	0.004	N 72468	41-14-53 077-01-58	259.6	111.1 5.07	12.0 106.0 Close
960401K 81942	CORNING NY	BPET APP C	19960401KF	30(Z)	12.000 166	D 24081	42-09-43 077-02-15	307.1	135.4 29.36	12.0 106.0 Clear
WSKA 78908	CORNING NY	BMPED CP C	20040413AA	30()	25.000 334	D 71232	42-08-30 077-04-39	305.5	136.8 26.76	24.0 110.0 Clear
WSWB 73374	SCRANTON PA	BPCDT CP C	19980825KK	31()	400.000 360	N 59291	41-26-09 075-43-46	96.8	0.0 196.30	196.3 196.3 Short
WSWB 73374	SCRANTON PA	BDSTA STA C	20040510AC	31()	0.005 303	N	41-26-09 075-43-45	90.1	0.0 217.28	217.3 217.3 Short
W31BP 34332	BURLINGTON, NY	BDFCD APP C	20060403AK	31()	240.000 19156	D	42-42-53 075-08-40	18.6	150.1 67.23	217.3 217.3 Short
WPPX 51984	WILMINGTON DE	BLCDT LIC C	20031203AF	31()	200.000 374	D 39302	40-02-30 075-14-11	164.8	160.3 35.98	196.3 196.3 Short
WPXN-TV 73356	NEW YORK NY	BPCT APP C	19961205KF	31(-)	5000.000 475	D 20658	40-42-43 074-00-49	118.7	165.1 52.20	217.3 217.3 Short
WPXN-TV 73356	NEW YORK NY	BLCT LIC C	19860703KH	31(-)	2820.000 475	D 20658	40-42-43 074-00-49	118.7	165.1 52.20	217.3 217.3 Short
DWTGIT	WILMINGTON DE	DTV		31()	50.000 292	D	39-41-43 075-17-55	169.2	196.7 0.39	196.3 196.3 Close

Call Id	City St	File Status Num	Channel Zone	ERP HAAT	DA Id	Latitude Longitude	Bear	Dist. (km)	Req. min max
WUHF 413	ROCHESTER NY	BLCT LIC C	31(+) I	1200.000 152	N 20560	43-08-07 077-35-03	321.7	243.0 25.68	217.3 Clear
WTIC-TV 147	HARTFORD CT	BDSTA STA C	31() I	470.000 269	D 61459	41-42-13 072-49-57	82.0	243.5 26.15	217.3 Clear
WTIC-TV 147	HARTFORD CT	BMDST STA C	31() I	470.000 287	D 65853	41-42-13 072-49-57	82.0	243.5 26.15	217.3 Clear
	BROCKVILLE(ON CAN		31() I	0.000 0		44-36-00 075-41-00	A 0.6	351.5 11.47	363.0 Short
NEW-DT 163309	BROCKVILLE ON	BPFS APP C	31(Z) II	0.200 100	N	44-36-00 075-41-00	0.6	351.5 11.53	340.0 Close
WQPX 64690	SCRANTON PA	BMDST STA C	32() I	102.000 354	D 64946	41-26-06 075-43-35	110.0	0.3 11.73	12.0 Close
WQPX 64690	SCRANTON PA	BMPCD CP C	32() I	528.000 354	D 59210	41-26-06 075-43-35	110.0	0.3 23.73	24.0 Clear
DWSWBT	SCRANTON PA		32() I	50.000 374	D	41-26-09 075-43-33	90.0	0.3 23.70	24.0 Clear
WQPX 64690	SCRANTON PA	BPCT APP C	32(Z) I	400.000 491	D 43028	41-25-36 075-44-52	236.3	1.8 10.16	12.0 Close
WIVT 11260	BINGHAMTON NY	BLCT LIC C	34(Z) I	2820.000 283	D 17490	42-03-39 075-56-36	345.7	71.7 8.84	24.1 Short
WYLN-LP 68135	HAZLETON PA	BLTTL LIC C	35(+) I	8.920 160.6	D 20732	40-58-10 075-57-24	200.2	55.2 25.31	0.0 Class A
WSWB 73374	SCRANTON PA	BLCT LIC C	38(+) I	1290.000 385		41-26-09 075-43-45	90.1	0.0 24.08	24.1 Clear
WLVT-TV 36989	ALLENTOWN PA	BMLET LIC C	39() I	575.000 302	N 69325	40-33-58 075-26-06	165.6	99.7 19.21	24.1 Clear

Figure 3



PREDICTED FCC CONTOURS

DTV STATION WSWB-DT
SCRANTON, PENNSYLVANIA
CH 31 100 KW 352 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

du Treil, Lundin, and Rackley

Proposed WSWB-DT, Ch. 31, Scranton, PA

Coordinates: 41-26-09

075-43-46

Frequency Range: -

Range: 16

Date: 6/8/2006

CDBS FM Inquiry List

Page: 1

Rec Type	Fac Id	Call	Status	Chan	Svc Class	Class	City	St	DA	Latitude	Longitude	ERP (kW)	HAAT (m)	RCAMSL (m)	Bear	Dist. (km)
C	43521	WBHD	APP	239	FM	A	OLYPHANT	PA	N	41-26-09	075-43-45	0.600	308.0	658.0	90.1	0.0
C	43521	WBHD	LIC	239	FM	A	OLYPHANT	PA	D	41-26-09	075-43-45	0.600	308.0	658.0	90.1	0.0
C	36508	WWRR	CP	285	FM	A	SCRANTON	PA	N	41-26-06	075-43-35	0.270	333.0	690.0	110.0	0.3
C	36508	WWRR	LIC	285	FM	A	SCRANTON	PA		41-26-06	075-43-35	0.270	333.0	690.0	110.0	0.3
C	69198	WUSR	LIC	258	FM	A	SCRANTON	PA	N	41-26-09	075-43-33	0.300	309.0	670.0	90.0	0.3
C	36202	WGGY	LIC	267	FM	B	SCRANTON	PA	N	41-25-38	075-44-53	7.000	365.0	710.0	238.3	1.8
C	40634	WVMW-F	LIC	219	FM	A	SCRANTON	PA	N	41-25-57	075-38-06	2.000	-87.0	298.0	92.7	7.9
C	66364	WEZX	LIC	295	FM	A	SCRANTON	PA	N	41-20-52	075-39-03	1.450	188.0	625.0	146.2	11.8
C	22925	WDMT	LIC	272	FM	A	PITTSTON	PA	N	41-18-20	075-45-38	5.800	22.0	397.0	190.2	14.7
C	22666	WFEZ	LIC	276	FM	A	AVOCA	PA	N	41-18-20	075-45-38	6.000	22.0	397.0	190.2	14.7

du Treil, Lundin, and Rackley

Proposed WSWB-DT, Ch. 31, Scranton, PA

Coordinates: 41-26-09

075-43-46

Channel Range: -

Range: 16

Date: 6/8/2006

CDBS Tv Inquiry List

Page: 1

<i>Rec Type</i>	<i>Facility Id</i>	<i>Call</i>	<i>Status</i>	<i>Chan</i>	<i>Svc Class</i>	<i>Class</i>	<i>City</i>	<i>St</i>	<i>DA</i>	<i>Latitude</i>	<i>Longitude</i>	<i>ERP (kW)</i>	<i>HAAT (m)</i>	<i>RCAMSL (m)</i>	<i>Bearing</i>	<i>Dist. (km)</i>
C	52077	W24DB	LIC	24	CA		CLARKS	PA	D	41-26-09	075-43-46	17.500		719	0	0
C	73374	WSWB	CP	31	DT		SCRANTON	PA	N	41-26-09	075-43-46	400.000	360	715	0	0
C	73374	WSWB	LIC	38	TV		SCRANTON	PA		41-26-09	075-43-45	1290.00	385	735	90.09	0.02
C	64690	WQPX	CP	32	DT		SCRANTON	PA	D	41-26-06	075-43-35	528.000	354	713	110.0	0.27
C	64690	WQPX	LIC	64	TV		SCRANTON	PA	D	41-26-06	075-43-35	5000.00	372	735	110.0	0.27
C	64690	WQPX	APP	32	TV		SCRANTON	PA	D	41-25-36	075-44-52	400.000	491	836	236.3	1.84